

EXHIBIT B

Claim 1	Construction	Mueller Mi.Net System
<p>A communicator for wirelessly transmitting frames to and receiving frames from a least one additional communicator in accordance with a predetermined medium access control protocol, the communicators which transmit and receive the frames constituting a Group, each communicator including a transmitter and a receiver for transmitting and receiving the frames respectively, the medium access control protocol controlling each communicator of the Group to effect predetermined functions comprising:</p>	<p>A “communicator” is “a device capable of communication.” <i>Atlas IP, LLC v. St. Jude Med., Inc.</i>, 2014 U.S. Dist. LEXIS 104109 at *16 (S.D. Fla. July 30, 2014).</p> <p>A “medium access protocol” is a “protocol for selectively activating and deactivating the transmitters and receivers of the means for communicating between the resources to save electrical power consumed while still permitting LAN-like functionality.”</p> <p>A “frame” is “an ordered group of bits.” ‘734 Patent at 1:41-43.</p>	<p>Mueller has established Mi.Net wide area networks (“WANs”) comprising communicators of Mi.Hub collectors or MiNode Electric (collectively hereinafter known as Mi.Hub)[<i>hub</i>] and Mi.Nodes or nodes, namely:</p> <ul style="list-style-type: none"> • MiNode-Water • MiNode-Electric • MiNode-AC • MiNode-DC • MiNode-OWL • MiHydrant • MiHydrant-XR • Mueller Systems SmartMeter • 420 meters <p>which communicate with one another using wireless technology (long range technology (LoRaWAN)).</p> <p>The Mi.Hub and the Mi.Nodes communicate via a wireless mesh <i>protocol</i> over the ISM (902-928 MHz) frequency bands. The wireless mesh protocol specifies the <i>functions</i> of the Mi.Hub and the nodes described below.</p> <p>The Mi.Hub and nodes communicate using, <i>inter alia</i>, scheduled messages and queries [communicated in <i>frames</i>].</p>

<p>designating one of the communicators of the Group as a hub and the remaining the communicators of the Group as remotes</p>	<p>A “hub” is a “communicator that has been designated by the medium access control protocol to control communications to and from the remotes.” ‘734 Patent at 5:42-66, 10:33-49, 11:28-30, 13:67-14:14, 43:3-17, Figs. 1- 3, 11, 18.</p>	<p>The wireless protocol <i>designates</i> the Mi.Hub to perform the functions of the hub, and the nodes to perform the functions of <i>remotes</i>.</p>
<p>the hub establishing repeating communication cycles, each communication</p>	<p>A “communication cycle” is “a series of intervals for outbound and inbound</p>	<p>The Mi.Hub collector receives data from Mi.Node modules at pre-scheduled intervals or “on demand” providing real-time updates from all or selected nodes.</p> <p>The Mi.Hub [hub] <i>establishes a communication cycle</i> by transmitting a read request message or a power status check message to a node [remote]. The read request message is sent during one <i>interval</i> in the communication cycle, and the Mi.Node sends a message or a power status message to the Mi.Hub in a subsequent <i>interval</i> within the communication cycle.</p>
<p>the hub transmitting cycle establishing information to the remotes to establish the communication cycle and a plurality of predeterminable intervals during each communication cycle, the intervals being ones when the hub is allowed to transmit frames to the remotes, when the remotes are allowed</p>	<p>“[W]e today hold that the starting time and duration of the cycle and of remote-transmission intervals within each cycle must be communicated by the hub to the remotes before the time at which remotes may begin transmitting.” <i>Atlas IP, LLC v. St. Jude Med., Inc.</i>, 804 F.3d 1185, 1188 (Fed. Cir. 2015).</p>	<p>The Mi.Hub [hub] <i>communicates the starting time and duration of the cycle and constituent intervals</i> to the nodes [remote]. The <i>starting time</i> is communicated to the node when the Mi.Hub transmits the read request message or the power status check message to the node, <i>i.e.</i>, the transmission is the <i>starting time</i>.</p> <p>The read request (a request for electricity usage or water usage and power status check request messages, and the responses thereto,</p>

<p>to transmit frames to the hub, and when each remote is expected to receive a frame from the hub;</p>		<p>are of fixed length or <i>duration</i>. The type of request message transmitted by the Mi.Hub informs the nodes of the <i>duration</i> of each <i>interval</i> of the <i>communication cycle</i>, <i>e.g.</i>, an interval length sufficient to transmit a fixed length read request from the Mi.Hub to the node [<i>the interval when the hub is allowed to transmit frames to the remote and when the remote is expected to receive frames from the hub</i>], and an interval length sufficient to transmit a read response from the smart meter to the Mi.Hub [<i>the interval when the remote is allowed to transmit frames to the hub</i>].</p>
<p>the hub transmitting a frame containing the cycle establishing information which establishes both an outbound portion of the communication cycle when the hub transmits frames to the remotes and an inbound portion of the communication cycle when the remotes transmit frames to the hub, the frame containing the cycle establishing information also establishing the predetermined intervals during the outbound and inbound portions of the</p>	<p>A “frame” is “an ordered group of bits.” ‘734 Patent at 1:41-43.</p> <p>A “communication cycle” is “a series of intervals for outbound and inbound communications.” ‘734 Patent at 5:44-58, 7:12-18, 11:38-55, 13:12-36, 27:54-28:64, 32:19- 22, 33:8-27, 37:32-38:33, Figs. 3, 10-11, 18-19.</p>	<p>The read request and power status check request messages are “an ordered group of bits,” <i>i.e.</i>, they are <i>frames</i>. As explained above, these message [<i>frames</i>] contain information establishing the communication cycle, including the <i>interval</i> in which a read request or power status check request messages is sent from the Mi.Hub [<i>hub</i>] to the Mi.Node [<i>remote</i>] [<i>the outbound portion of the communication cycle</i>], and the <i>interval</i> in which a read message or power status message is sent from the Mi.Node [<i>remote</i>] to the Mi.Hub [<i>hub</i>] [<i>the inbound portion of the communication cycle</i>]</p>

communication cycle when each remote is allowed to transmit and receive;		
the remotes powering off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub, by using the cycle establishing information transmitted from the hub; and	<p>“Powering off” means “to disable or power down circuitry.” ‘734 Patent at 28:38-44.</p> <p>An “interval” occurs within a communication cycle. Atlas IP, LLC v. Medtronic, Inc., 2014 U.S. Dist. LEXIS 143 at *42 (S.D. Fla. Oct. 8, 2014).</p>	<p>A Mi.Node [remote] has a radio transceiver that utilizes the licensed 902-928 MHz band.</p> <p>The Mi.Node [remote] communicates with the Mi.Hub [hub] using half- duplex radio frequency communications. In half-duplex communications, a smart meter [remote] powers down the transmitter circuitry of the radio transceiver during the <i>interval of the communication cycle</i> in which it is receiving the read request and power status check request messages [frames].</p>
the remotes powering off their receivers during times other than those intervals when the remote is expected to receive a frame from the hub, by using the cycle establishing information transmitted from the hub.	<p>“Powering off” means “to disable or power down circuitry.” ‘734 Patent at 28:38-44.</p> <p>An “interval” occurs within a communication cycle. Atlas IP, LLC v. Medtronic, Inc., 2014 U.S. Dist. LEXIS 143 at *42 (S.D. Fla. Oct. 8, 2014).</p>	<p>The Mi.Node [remote] communicates with the Mi.Hub [hub] using two way radio frequency communications. In half-duplex communications, a Mi.Node [remote] powers down the receiver circuitry of the radio transceiver during the <i>interval of the communication cycle</i> in which it is transmitting the read and power status check request messages [frames].</p>